



A quarterly electronic publication from the

NASA Scientific and Technical Information (STI) Program

[Subscribe or
Unsubscribe](#)

[STI Fact Sheets](#)

[Back Issues](#)

[Spinoff](#)

[NASA Commercial
Technology Network
\(NCTN\)](#)



October 2000

NASA STI News	Other NASA News	NCT Program *
...From the STI Principal Center STI Program Plan ...From Glenn ...From Goddard	NASA History Office	NCTP Overview Spinoff * NASA Commercial Technology



...From the NASA STI Program's Principal Center



[Home](#)

[Subscribe or Unsubscribe](#)

[STI Fact Sheets](#)

[Back Issues](#)

[Spinoff](#)

[NASA
Commercial Technology
Network \(NCTN\)](#)

NASA STI Goes to Oshkosh

The NASA Scientific and Technical Information (STI) Program exhibited at the Experimental Aircraft Association (EAA) AirVenture 2000 exposition in Oshkosh, Wisconsin, July 26 - August 1. This was the first year that the NASA STI Program exhibited at the show. 765,000 aviators and enthusiasts came to the exposition from around the world to share their appreciation of aircraft. Media coverage included 917 representatives from five continents. In addition visitors from 61 nations were in attendance. NASA maintained a large presence at the show with exhibits on the International Space Station, aviation safety, and experimental aircraft. The focus of the STI exhibit was, in the words of Daniel Goldin, NASA Administrator, "spreading the unique knowledge that flows from its [NASA's] aeronautics and space research." Staffed by NCI Information Systems, Inc. employees based at the NASA Center for AeroSpace Information (CASI) in Hanover, Maryland, the exhibit aimed at exposing the knowledge base of STI that is available to the public. A continuously running video display and Internet link to the NASA STI website (<http://www.sti.nasa.gov>) captured the interest of the visitors. Many took advantage of a twice-a-day drawing for a hardcover NASA special publication, *Exploring the Unknown*, or video, *Apollo 11, for all mankind*. The experience was highlighted by the visit of Dan Goldin to the exhibit. Mr. Goldin was pleased to see NASA research information and the STI Program being promoted.

More About the NASA STI Program

The NASA Scientific and Technical Information (STI) Program was established to support the objectives of NASA's missions and research. It is dedicated to the advancement of aeronautics and space science. This program is essential to help NASA avoid duplication of research by sharing information and to ensure that the U.S. maintains its preeminence in aerospace-related industries and education. The NASA STI Program acquires, processes, archives, announces, and disseminates both Nasa's internal STI and worldwide STI of critical importance to NASA and the nation.

STI is defined as basic and applied research results from the work of scientists, engineers, and other technical and management personnel. STI is made available in paper, film, microfiche, and electronic media. The STI Program is a critical component in the worldwide activity of scientific and technical aerospace research and development.

Collected from U.S. and international sources, STI is organized via its content prior to being added to the STI Database. The STI Database is a world-class collection of STI that includes more than three million bibliographic records. The STI Program manages the activities of the NASA Center for AeroSpace Information (CASI) in Maryland. CASI is Nasa's archiving and dissemination facility, providing a wide variety of products and services in various media and platforms.

For further information visit the NASA STI Program website at <http://www.sti.nasa.gov> or contact the NASA STI Help Desk via E-mail: help@sti.nasa.gov, Fax: 301-621-0134, Telephone: 301-621-0390.

[NEXT](#)



The EAA AirVenture 2000 plays host to hundreds of thousands of aviation enthusiasts.



CI/NASA Center for AeroSpace Information staff were on hand to represent the STI Program and answer any questions. (L to R) David Purdy, Matthew Krueger, Eric Vogel.



NASA exhibited in 3 large hangars throughout Wittman Regional Airport. The exhibits shown here were in front on the main NASA building.



The STI Program utilized various multimedia and static presentations to increase program awareness.

NASA Image eXchange (NIX) Proposals

The NASA STI Program recently solicited proposals for FY01 to improve specific areas of NIX. The deadline for proposals to the STI Program Office was September 29, 2000. These proposals were for: unique collections of imagery that will expand the subject matter of NIX, beta-test sites to participate in, evaluate, and recommend improvements to potential search engine replacement for NIX, collections of imagery that will significantly increase the number or variety of images in NIX, and automated technology or applications that improve the indexing of images or input of metadata for NIX. Recipients of the accepted proposals will be notified in November 2000, with receipt of funds potentially in February 2001. NIX currently links to more than 600,000 images.

NASA STI Signs Memorandum of Agreement with Space Business Archives

The NASA STI Program, under the auspices of Code AO, signed a Memoranda of Agreement with Space Business Archives (SBA) on July 22, 2000. SBA is a nonprofit organization that preserves primary documents generated within the commercial space industry. SBA has agreements with NASA Code Z and Stennis Space Center and other companies and organizations such as Lockheed, the US Department of Commerce, 3M, and the US Department of Transportation. Lee Holcomb, NASA CIO, was the signatory for NASA.

Best Feds Webpage Nomination

The STI webpage has been nominated for *GovExec* magazine's "Best Federal Websites" competition for FY00. Deadlines for submission were extended through September 2000. Criteria for nomination included that the sites: provide excellent customer service to the public by having a well-designed site with a large amount of useful information, use the web to improve business for the agency, and make use of new technologies that other federal sites should consider emulating. For more information, see <http://www.govexec.com/bestfeds/>.

Acquisitions of NASA STI up by 33% From Last Year

The NASA Center for AeroSpace Information reports that acquisitions of NASA-produced STI rose by 33% from the levels collected during the same period last year. CASI has put strong emphasis on acquiring NASA STI both directly from the NASA centers and contractors and from external organizations that capture NASA's STI.

STI To Brief Agency CIO's

The NASA STI Program has been asked to give a presentation on the scope of the program to all NASA chief information officers (CIO's). This presentation will be given to both the centers' CIO's and the CIO's for the NASA Enterprises within the next few months.

NASA STI Included in NASA's Performance Plan and Metrics for the Government Performance Review Act (GPRA)

STI has submitted proposed metrics to NASA HQ for FY01 and FY02 to be included in the NASA Performance Plan and its subsequent GPRA metric review. These metrics are listed under the Communicate Knowledge section. Once approved by HQ, the Agency metrics will be forwarded to the centers for their information. Metrics submitted include acquisition of NASA-produced STI, NIX imagery, and customer service via the NASA Center for AeroSpace Information.

STI Provides Information on Systems Analysis Tools

STI has provided sampler bibliographies via <http://www.sti.nasa.gov> on failure modes and effects analysis, fault tree analysis, and probabilistic risk assessment. In addition, a more extensive treatment of these bibliographies is now available in the following NASA Special Publications:

- NASA/SP-2000-6110 *Failure Modes and Effects Analysis (FMEA)-A Bibliography* – July 2000
- NASA SP-2000-6111 *Fault Tree Analysis-A Bibliography* – July 2000
- NASA/SP-2000-6112 *Probabilistic Risk Assessment-A Bibliography* – July 2000

For more information, contact help@sti.nasa.gov.

NASA STI Voted in as Full Member of Alliance

The NASA STI Program has been voted in as a full member of the Alliance for Innovation in Science and Technology Information (formerly known as the New Mexico Library Alliance). Full members govern the direction of the Alliance, determine products to purchase, and participate/contribute funds for research development. Information on this Alliance can be found at <http://lib-www.lanl.gov/alliance/lsanm.htm> Member organizations can be found at <http://lib-www.lanl.gov/alliance/memhome.htm#Home> pages

[NEXT](#)

The NASA Center for AeroSpace Information (CASI) is nearing completion of a unique web-accessible tool that can support a number of information analysis tasks. The new application uses the NASA Thesaurus as a basis for a **concept-extraction** tool that can be directed at any user-supplied text. Titles and abstracts, full-text documents, or web pages can be pasted into an input screen and seconds later a listing of subject terms from the NASA Thesaurus will result. The tool is based on the *Machine Aided Indexing* (MAI) application originally developed by CASI as an aid to indexing technical literature for the STI database. Natural language processing (NLP) algorithms combined with an extensive knowledge base enable the concept extraction capability.

NASA Thesaurus
Machine Aided Indexing
Machine Aided Indexing

[illegible]

...a text analysis tool for subject indexing

NASA Administrator Daniel S. Goldin says in his welcoming letter on the NASA homepage, "NASA is deeply committed to spreading the unique knowledge that flows from its aeronautics and space research." The NASA Scientific and Technical Information (STI) Program is a key component to that mission. STI is the collected set of facts, analyses, and conclusions resulting from scientific, technical, and related engineering research and development efforts, both basic and applied. The NASA STI Program can provide you with this wealth of information through three venues.

Individual documents, publications, videos, and CD-ROM's can be ordered from the NASA Center for AeroSpace Information (CASI). Once you identify the material you want from the NASA STI Database (<http://www.sti.nasa.gov>), you can order the material by phone, fax, or the online order form. You may pay by Visa, MasterCard, American Express, or Diner's Club credit cards. If you are registered at the NASA CASI, you may choose to be invoiced. Orders are normally processed within three days and shipped to your workplace.

NASA STI offers two automatic distribution services that provide the convenience of receiving NASA produced STI throughout the year. The NASA Automatic Distribution Service (ADDS) automatically distributes NASA reports with the simplicity of a single annual fee. The Formal Reports by Subject Division groups reports into ten broad subject divisions that are available in both microfiche and paper. The Formal Reports by Series option allows selection of NASA Special Publications (SP) and/or Conference Proceedings (CP). The Formal Reports by Subject Categories offers paper copies of narrower, targeted subject selections based on a more specific classification scheme.

The NASA Standing Order Service (SOS) automatically distributes NASA STI in paper, microfiche, and/or CD-ROM. There are three options for receiving NASA STI, (1) by NASA Subject Division in paper or microfiche (2) by NASA Report Series in paper, or (3) by NASA Subject Category in paper. With all three options, you may request to receive unclassified documents with controlled distribution, or, beginning in 2001, NASA STI originally produced on CD-ROM. Also beginning in 2001, a separate automatic distribution service for unclassified NATO RTO publications is available in CD-ROM only.

The Aeronautics and Space Access Page (ASAP) is a web-based interface to the NASA STI Database available to NASA and NASA contractors at NASA sites. ASAP gives access to full-text images of recently published STI and some of the more popular older information. Users must register at the NASA Center for AeroSpace Information for a User ID and Password for ASAP access.

The NASA STI Program offers discounts of 20% for many of its products and services to NASA organizations, employees, and contractors that are registered at the NASA Center for AeroSpace Information. For registration information or to see how the NASA STI products and services can help you, visit the NASA STI homepage at <http://www.sti.nasa.gov> or call the NASA STI Help Desk at 301-621-0390 to have an information packet sent to you.

[BACK](#)



...STI Program Plan

[Home](#)

[Subscribe or
Unsubscribe](#)

[STI Fact Sheets](#)

[Back Issues](#)

[Spinoff](#)

[NASA
Commercial
Technology Network
\(NCTN\)](#)

In part, the NASA STI Program states, "The NASA Scientific and Technical Information Program is an integral part of NASA's future. The program supports the Agency's missions to communicate scientific knowledge and understanding to help transfer NASA's research and development to the aerospace and academic communities. By ensuring a fast, two-way process of internal and external information exchange, the STI Program helps NASA avoid duplication of research, time, and cost and to make its wealth of information available to benefit its customers. Each Center is responsible for acquiring, tracking, and producing, or having produced, NASA STI related to their Center mission; and for ensuring that Center STI reaches the STI Database [at the NASA Center for AeroSpace Information]."

To that end, each NASA Center executes the STI Program mission and objectives by way of a team of individuals that applies professional publishing standards to all scientific and technical information passing through its doors. Whether the information will result in a document to be distributed through the traditional print and mail process or an electronic document available on the Internet-or both-the team is responsible for making it happen, going through the process step-by-step with each customer. For information about the STI Program at any NASA Center, visit <http://www.sti.nasa.gov>.



...From Glenn Research Center



Glenn Presents 1999 Distinguished Publication Award

The Glenn Research Center 1999 Distinguished Publication Award, "Surface Segregation in Multicomponent Systems: Modeling of Surface Alloys and Alloy Surfaces," was written by a six-member team composed of Guillermo H. Bozzolo, Ohio Aerospace Institute, John Ferrante, NASA Glenn Research Center (retired), Ronald D. Noebe, Brian Good, Frank S. Honey, and Phillip Abel, NASA Glenn Research Center.

This paper appeared in the peer-reviewed journal *Computational Materials Science* in response to an invitation to contribute to a special issue devoted to the modeling and simulation of surface segregation in alloys (vol.15, no.2, 1999, pp.169-195). The paper summarizes the efforts of the Computational Materials Group at the NASA Glenn Research Center in applying efficient modeling techniques to the analysis and determination of surface segregation in alloys, surface alloying (alloys that form only in the surface layers), and the growth of thin films. It defines the state of the art in simulations of multicomponent systems and deals with systems at a level of complexity that extends beyond any other modeling technique in current use. Because of their fundamental nature, the topics covered constitute the starting point for groundbreaking research in areas of surface science that have gone previously unexplored from a theoretical and computational standpoint. Since its recent appearance in print, this paper has generated a strong response in terms of reprint requests.

The work is in support of the High-Temperature Engine Materials Program, and Physics Process Modeling. A full-text version of the report, NASA/TM1999-209042, can be found on the Glenn Technical Report Server at <ftp://ftp-letrs.lerc.nasa.gov/LeTRS/reports/1999/TM-1999-209042.pdf>.

[Home](#)

[Subscribe or Unsubscribe](#)

[STI Fact Sheets](#)

[Back Issues](#)

[Spinoff](#)

[NASA
Commercial Technology
Network \(NCTN\)](#)



...From Goddard Space Flight



STI Reports Now Available

The TISB editors produced the following formal STI reports:

- *Technical Memorandums: One-Dimensional Coupled Ecosystem-Carbon Flux Model for the Simulation of Biogeochemical Parameters at Ocean Weather Station P*
- *Ocean Optics Protocols for Satellite Ocean Color Sensor Validation, Revision 2*
- *2000 Survey of Distributed Spacecraft Technologies and Architectures for NASA's Earth Science Enterprise in the 2010–2025 Timeframe*
- *Material Total Mass Loss in Vacuum Obtained from Various Outgassing Systems*
- *Preventing Damaging Pressure Gradients at the Walls of an Inflatable Space System*
- *OMS Level-3 Data Product User's Guide*

The following Conference Report is now available:

- *Sixth International Conference on Squeezed States and Uncertainty Relations*

Other items now available:

- Terra/ASTER 7-Litho Set

The lithos present remote sensing data, including an ASTER-Mt. Usu image, ASTER-San Francisco image, CERES image, MISR-Appalachian image, MODIS-3 images, MOPITT-North America image, Terra spacecraft image (this set includes an Educational Guide for use in the classroom); and, SeaWiFS poster and teaching supplement.

- Laboratory for Atmospheres Annual Report and Cosmic Journeys Outreach Booklet
 - EO-1 Lithographs in Spanish and English
 - POES Program NOAA Launch Posters
 - Starchild Life Cycles Poster
 - Reprints of Space Telescope Science Institute's Solar System Trading Cards
-

[Home](#)

[Subscribe or
Unsubscribe](#)

[STI Fact Sheets](#)

[Back Issues](#)

[Spinoff](#)

[NASA
Commercial
Technology Network
\(NCTN\)](#)



...From the NASA History Office



[Home](#)

[Subscribe or Unsubscribe](#)

[STI Fact Sheets](#)

[Back Issues](#)

[Spinoff](#)

[NASA
Commercial Technology
Network \(NCTN\)](#)

CHALLENGE TO APOLLO PUBLISHED

We are very pleased to announce the publication of *Challenge to Apollo: The Soviet Race to the Moon, 1945-1974* (NASA SP-2000-4408), a pathbreaking study by Asif A. Siddiqi. This book is the first comprehensive history, totaling more than 1,000 pages, to appear on the Soviet human spaceflight program since the opening of the archives in the early 1990s. As a result, it benefits from exceptionally strong primary source materials, as well as perspective on an important challenge that helped to define the U.S. space effort until the 1980s.

This book is available for public sale from the U.S. Superintendent of Documents. How to order: For sale for \$79.00 (domestic postpaid), \$98.75 (non-U.S.). By Mail: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. FAX: (202) 512-2250. Phone: (202) 512-1800 (7:30 a.m.-4:30 p.m. Eastern time). This book may be ordered on-line at <http://bookstore.gpo.gov/index.html> on the Web. Order stock number 033-000-01231-4. This book may also be purchased from the NASA Information Center, Code CMI-1, NASA Headquarters, 300 E Street SW, Room 1H23, Washington, DC 20546-0001, (202) 358-0000.

OTHER NEW NASA HISTORY PUBLICATIONS

Astronautics and Aeronautics, 1991-1995: A Chronology

Astronautics and Aeronautics, 1991-1995: A Chronology, compiled by Ihor Y. Gawdiak and Charles Shetland (NASA SP-2000-4028), is the latest volume in the continuing *Astronautics and Aeronautics* series. This softcover book is an excellent reference work for those interested in aerospace history. Because it is organized chronologically, this book makes it easy to look up what happened at NASA or in the aerospace field generally on a particular day during the five-year period it covers. It includes a useful appendix that details, also in chronological order, the various human and robotic spacecraft, which were launched from 1991-1995. How to order: For sale for \$43.00 (domestic postpaid), \$53.75 (non-U.S.) from the U.S. Superintendent of Documents. By Mail: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. FAX: (202) 512-2250. Phone: (202) 512-1800 (7:30 a.m.-4:30 p.m. Eastern time). Interested readers may also order this book on-line at <http://bookstore.gpo.gov/index.html> on the Web, stock number 033-000-01230-6. This book also may be purchased from the NASA Information Center, Code CMI-1, NASA Headquarters, 300 E Street SW, Room 1H23, Washington, DC 20546-0001, (202) 358-0000.

Atmosphere of Freedom: Sixty Years at NASA Ames Research Center

Atmosphere of Freedom: Sixty Years at NASA Ames Research Center (NASA SP-2000-4314) is now available. Written by Glenn E. Bugos, *Atmosphere of Freedom* is a well-illustrated history of the Ames Research Center, near Silicon Valley, California. It is for sale for \$39.00 (domestic postpaid), \$48.75 (non-U.S.) from the U.S. Superintendent of Documents. By Mail: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. FAX: (202) 512-2250. Phone: (202) 512-1800 (7:30 a.m.-4:30 p.m. Eastern time). You may also order this book on-line at <http://bookstore.gpo.gov/index.html> on the Web, stock number 033-000-01225-0. For further information on this book, contact David Morse at Ames (dmorse@mail.arc.nasa.gov).

Reconsidering Sputnik: Forty Years Since the Soviet Satellite

Reconsidering Sputnik: Forty Years Since the Soviet Satellite (Harwood Academic, 2000) contains papers from an October 1997 conference on Sputnik cosponsored by NASA, the Smithsonian, and George Washington University. Edited by Roger D. Launius, John M. Logsdon, and Robert W. Smith, the collection includes essays by Walter McDougall, Sergey Khrushchev, James Harford, Peter Gorin, and Asif Siddiqi. To order, please go to http://catalog.gbhap-us.com/fc3/catalog?/books/TITLE_REC_0012579 on the web.

FORTHCOMING NASA HISTORY PUBLICATIONS

Partners in Freedom: Contributions of the Langley Research Center to U.S. Military Aircraft in the 1990s

Forthcoming in the fall of 2000 is *Partners in Freedom: Contributions of the Langley Research Center to U.S. Military Aircraft in the 1990s* (Monographs in Aerospace History #19, NASA SP-2000-4519), written by Joseph R. Chambers. This monograph describes the close working relationship between the aerospace research undertaken at the Langley Research Center in Hampton, Virginia, and the development of military aircraft for the Department of Defense. Stay tuned for more information on this monograph.

[NEXT](#)

Black Magic and Gremlins: Analog Flight Simulations at NASA's Flight Research Center

Black Magic and Gremlins: Analog Flight Simulations at NASA's Flight Research Center (Monographs in Aerospace History #20, NASA SP-2000-4520) is a monograph by Gene L. Waltman to be published this fall. This monograph will cover the use of analog and hybrid (analog and digital) flight simulations done at NASA's Flight Research Center and its predecessor organization under the National Advisory Committee for Aeronautics (NACA) from 1955 to 1975. Among the projects covered in the monograph are the simulations for the X-15 rocket-powered aircraft, the lifting bodies, and the General Purpose Airborne Simulator. The monograph is rich in personal anecdotes and includes personal accounts by many people involved in the early simulations.

The Infinite Journey: Eyewitness Accounts of NASA and the Age of Space

In October 2000, *The Infinite Journey: Eyewitness Accounts of NASA and the Age of Space* will appear from Random House. Written by well-known author William E. Burrows, this book recounts the history of NASA from the 1950s to the present in text, beautiful illustrations, and excerpts from numerous interviews with NASA personnel. Walter Cronkite contributes a foreword. Under a Space Act Cooperative Agreement, the NASA History Office and the NASA Public Affairs Office worked with Discovery Channel Publishing to create this visually stunning book as part of President Clinton's Millennium Initiative to document the history of Federal government activities. The list price for this book will be \$40.00 and it will be available through numerous bookstores and on-line at Amazon.com and Barnesandnoble.com.

Mercury, Gemini, and Apollo Mission Transcripts: The Complete Air-to-Ground Transmissions

This fall we also plan to release a two-CD set containing .PDF versions of all the Mercury, Gemini, and Apollo air-to-ground transcripts. Titled, *Mercury, Gemini, and Apollo Mission Transcripts: The Complete Air-to-Ground Transmissions* (NASA SP-2000-4601, 2000), this CD-ROM will capture in PDF format all of the voice transmission recordings between Mission Control and the Mercury, Gemini, and Apollo missions in space. Special thanks to Glen E. Swanson, at the Johnson Space Center, for collecting all these transcripts, scanning them electronically, and organizing them. Thanks also to a large team of volunteers who helped Glen check the electronic transcripts for missing pages and other errors.

Exploring the Unknown: Selected Documents in the History of the U.S. Civil Space Program, Volume V, Space Science, Part 1

Late in 2000, we anticipate publishing the fifth volume in a continuing series of key documents. *Exploring the Unknown: Selected Documents in the History of the U.S. Civil Space Program, Volume V, Space Science, Part 1* (NASA SP-2000-4407), is being produced under the general editorship of John M. Logsdon. This volume will contain key documentary materials on the origins, evolution, and organization of the space science enterprise at NASA, the history of planetary exploration, and Earth science. A future volume will contain documentary materials on astronomy and astrophysics, microgravity and life sciences, solar science, and solar-terrestrial physics.

Apollo by the Numbers: A Statistical Reference

Early in 2001, the NASA History Office will release *Apollo by the Numbers: A Statistical Reference* (NASA SP-2001-4029), a unique collection of valuable statistical information about Project Apollo. Richard Orloff compiled these statistics and also wrote narrative chapters on the various Apollo missions.

Humans to Mars: Fifty Years of Mission Planning, 1950-2000

Also appearing early in 2001 will be *Humans to Mars: Fifty Years of Mission Planning, 1950-2000* (Monographs in Aerospace History #21, NASA SP-2001-4521), a monograph by David S.F. Portree that will provide an overview of the history of the various plans developed since the dawn of the Space Age for the human exploration of Mars. Each type of mission will be categorized, its originators noted, its main elements detailed, and its legacy traced in the development of subsequent mission elements. This work should be useful reading for those who want to understand the long history of planning for human expeditions to the red planet.

Uplink/Downlink: A History of the Deep Space Network

Finally, early in 2001, the NASA History Office will publish *Uplink/Downlink: A History of the Deep Space Network* (NASA SP-2001-4225, 2001), by Douglas J. Mudgway. This book will describe and analyze the complex history of the Deep Space Network (DSN) from its origins, as a result of the early years of the planetary science program in the late 1950s, through its current role in the present as the most capable communications system in the world. It will assess the role of this critical communications method for both providing control to planetary probes and a means of obtaining the scientific data collected. This project is complete and the manuscript is in production.

[NEXT](#)

NEW NASA HISTORICAL INFORMATION ON-LINE

New Site Map

For increased ease of Web navigation, the NASA History Office has added a useful and attractive site map at the top level of our Web site. It is accessible directly at <http://history.nasa.gov/site.html> and from our main page as a new hot-linked tab. There are now four different ways to search for information specifically on our NASA History Web site: the A-Z topical index, keyword search, major subject search, and now the site map. Special thanks go to Amanda Mellies, who suggested the site map, and to Les Lien of the Headquarters' Graphics and Design Office, who set up the site map and cleaned up some of our old pages.

25th Anniversary of Apollo-Soyuz Test Project

To commemorate the 25th anniversary of the Apollo-Soyuz Test Project (ASTP), we have a special site at <http://history.nasa.gov/astp/index.html> on the web. ASTP was the first human spaceflight mission managed jointly by two nations. The mission began with the Soyuz launch on July 15, 1975, followed by the Apollo launch seven hours later. Special thanks to Amanda Mellies for pulling the materials together for this site, to Les Lien for designing and laying it out expertly, and to Kipp Teague for creating an attractive and useful page of thumbnail images.

Project Gemini Technology and Operations: A Chronology

An on-line version of *Project Gemini Technology and Operations: A Chronology* (NASA SP-4002) by James M. Grimwood, and Barton C. Hacker with Peter J. Vorzimmer, is now available at <http://history.nasa.gov/SP-4002/cover.htm> on the web. Special thanks to volunteer Malcolm Munro for scanning and formatting this book for the web.

Computers Take Flight: A History of NASA's Pioneering Digital Fly-By-Wire Project

Computers Take Flight: A History of NASA's Pioneering Digital Fly-By-Wire Project (NASA SP-2000-4224), by James E. Tomayko, is now available at <http://www.dfrc.nasa.gov/History/Publications/f8ctf/> on the web. This electronic version includes the full text and images.

A History of Suction-Type Laminar-Flow Control with Emphasis on Flight Research

A History of Suction-Type Laminar-Flow Control with Emphasis on Flight Research (Monograph in Aerospace History, No. 13, 1999), by Albert L. Braslow, is now on-line at <http://www.dfrc.nasa.gov/History/Publications/LFC/> on the web.

Women in Flight Research

Women in Flight Research is now on-line at <http://www.dfrc.nasa.gov/History/Publications/WIFR/contents.html>. Written by Sheryll Goecke Powers, this Monograph in Aerospace History (#6) not only provides much information about women involved in (especially early) flight research at what became the Dryden Flight Research Center, but also a lot of details about how data was recovered from research flights and about the early history of the Center.

The Martian Landscape and Viking Orbiter Views of Mars

We are pleased to announce that *The Martian Landscape* (NASA SP-425, 1978) and *Viking Orbiter Views of Mars* (NASA SP-441, 1980) are now available on-line at <http://history.nasa.gov/SP-425/cover.htm> and <http://history.nasa.gov/SP-441/cover.htm> on the Web. These two excellent "coffee table books" are recommended for all fans of Martian exploration. Very special thanks to volunteer Chris Gamble, who expertly scanned and formatted these publications for the web.

JPL Space Calendar

The Jet Propulsion Laboratory has a useful space calendar site that is on-line at <http://www.jpl.nasa.gov/calendar/>. The WWW version of the Space Calendar includes over 1,600 links to related home pages. This calendar is compiled and maintained by Ron Baalke. Please send any updates or corrections to ron@jpl.nasa.gov. Note that launch dates are subject to change at any time and that anniversary dates are listed in five-year increments only.

[BACK](#)



...The NASA Commercial Technology Program

An Overview



[Home](#)

[Subscribe or
Unsubscribe](#)

[STI Fact Sheets](#)

[Back Issues](#)

[Spinoff](#)

[NASA
Commercial
Technology Network
\(NCTN\)](#)

The NASA Commercial Technology Program encompasses a national network of specialized centers and organizations that assist U.S. businesses and industry in accessing, utilizing and commercializing NASA-funded research and technology. The organizations work closely with each other to provide a full range of technology transfer and commercialization services and assistance. The NASA Commercial Technology Network (NCTN) consists of the Commercial Technology Organizations at each of the NASA field centers, the Jet Propulsion Laboratory, the National Technology Transfer Center (NTTC), the six Regional Technology Transfer Centers (RTTCs), NASA Tech Briefs, UNISPHERE, and other specialized organizations and services. All are dedicated to fostering dual-use technology partnerships and the transfer and commercialization of NASA-sponsored research and technology.

The NCTN provides access to a wide variety of information resources that can be searched and consulted for research and technology, patents, technical expertise, and R&D facilities, as well as for technology partnering, licensing, and commercialization opportunities. In addition to serving as an integrated information resource, the NCTN is developing into an electronic marketplace for NASA-sponsored technology, facilitating communications, transactions, and partnerships between NASA and the U.S. private sector.

Visit the NCTN website at <http://nctn.hq.nasa.gov> for more information on the NASA Commercial Technology Program and the members of its network.



Spinoff



[Home](#)
[Subscribe or Unsubscribe](#)
[STI Fact Sheets](#)
[Back Issues](#)
[Spinoff](#)
[NASA
Commercial Technology
Network \(NCTN\)](#)

About Spinoff

NASA's premier publication, *Spinoff*, features over 40 companies annually that have successfully utilized NASA technology in commercial products and processes. Each year NASA distributes tens of thousands of *Spinoffs* through trade shows, conferences, and special requests. The *Spinoff* website, located at <http://www.sti.nasa.gov/tto/spinoff.html>, includes a searchable database with an entry for every article. If you know of any companies that have successfully commercialized NASA technology, please contact the *Spinoff* editors, Ms. Sarah Sheehan at sanderson@sti.nasa.gov, telephone (301) 621-0244, or Mr. David Ferrera at dferrera@sti.nasa.gov, telephone (301) 621-0242.

To receive a printed copy of *Spinoff*, please contact the National Technology Transfer Center (NTTC) at (800) 678-6882 or visit the NTTC website at <http://www.nttc.edu>.

Special Feature: NASA Technology Business Incubators Assist Client Firms

A technology/business incubator is a facility designed and operated to nurture the development of new or early-stage business enterprises or "client firms" of the incubator. The client firms generally are tenants for a period of time up to about two years. The incubator must have a physical facility in which client firms are provided office, conference, laboratory, and/or other physical space on a fee or other basis under well-defined terms.

NASA incubators are technology-based and provide small high technology firms in the start-up phase with a wide array of support services necessary to commercially apply NASA-developed technology. Accordingly, the incubator will provide client firms with services for an affordable fee or other basis, which include assistance with:

- Access to laboratory and other technical resources for purposes of engineering prototyping, production prototyping, testing, analysis, and other essential R&D support, product development, and accessing other technical expertise.
 - Business plan development.
 - Market research and market analysis.
 - Establishing initial manufacturing operations.
 - Establishing product distribution and other sales operations.
 - Access to business consulting, legal, accounting, tax, insurance, and other financial expertise to include networking with non-institutional private investors, venture capitalists, and within the money markets and capital markets sectors.
 - Free or low-cost access in the start-up phase to necessary business office and manufacturing operations equipment and facilities.
 - Access to training, particularly with regard to business plan development, venture analysis, management and organization techniques, computer skills, computer financial accounting and other business systems design, networking in sectors critical to the client firm's business operations, regulatory compliance, and available information resources relevant to the client firm's particular business.
 - Access to free or low-cost college and university scientific, engineering, and business development expertise.
-